

### **REMARKS**

Reconsideration of the application is respectfully requested in view of the amendments and the discussion presented below. The amendments are supported by the application as filed and no new matter has been added by any of the amendments.

The specification is amended as requested by the Examiner. Additional amendments to the specification correct typographical mistakes and other informalities. The penultimate paragraph in the specification, for example, was inadvertently included from another and unrelated application.

Claims 1 and 7 are amended by adding the limitation of claim 5. Claim 5 is cancelled without prejudice.

Claims 1-4, 6, and 7 are now present in this application.

### **Discussion**

#### **1. Information Disclosure Statements**

As a preliminary matter, the Applicants note that the office action states that "the IDS filed on 3/14/05 was considered." The office action did not contain an initialed copy of the form PTO-1449 attached to this IDS. Nevertheless, the Applicants' attorney was able to obtain a copy of the initialed form PTO-1449 from the Image File Wrapper system in Public PAIR.

Of more concern is the lack of any acknowledgment in the office action of review of the three information disclosure statements received by the USPTO on March 4, 2004, January 13, 2004, and July 24, 2003, respectively. The Examiner is respectfully requested to remedy this deficiency in the next office action and to provide initialed copies of the appropriate forms PTO-1449.

## **2. The Objection to the Specification**

The Examiner objected to the specification for minor typographical errors, such as the use of the word "lever" instead of "level" at paragraph 0069 of the corresponding patent publication. The Examiner is thanked for noticing this discrepancy and specification has been corrected as requested. Other errors in the specification have also been corrected.

## **3. The Rejection of Claims 1, 4, 6, and 7 over Yanagawa**

The Examiner rejected claims 1, 4, 6, and 7 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Publication 2001/0026522 to Yanagawa ("Yanagawa").

Claims 1 and 7 have been amended by adding the limitations from claim 5. Claim 5 depended from claim 1 and stated limitations which are now added to claim 1. Claim 7 is an independent method claim to which three additional steps are added corresponding to the limitations of claim 5.

The Examiner found that the limitations of claim 5 are not taught by Yanagawa (see the office action at pages 5-6). Yanagawa therefore does not anticipate claims 1 and 7, as amended, for at least this reason. Claims 4 and 6 depend from the amended claim 1 and also are not anticipated by Yanagawa for at least that reason.

The rejection of claims 1, 4, 6, and 7 for anticipation by Yanagawa should be withdrawn.

## **4. The Rejection of Claims 2, 3, and 5 over Yanagawa in view of Furukawa**

The Examiner rejected claims 2, 3, and 5 under 35 U.S.C. 103(a) as being unpatentable over Yanagawa in view of U.S. patent 6,643,230 to Furukawa ("Furukawa"). To establish a *prima facie* case of obviousness, the Examiner must show: (1) that there is

some suggestion or motivation to modify the reference or to combine reference teachings; (2) that there is a reasonable expectation of success; and (3) that the prior art reference or references teach or suggest each and every claim limitation. *See* MPEP 2142. Further, the suggestion or motivation to modify or combine and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure. The Applicants submit that the Examiner has neither adequately shown a motivation to combine the references in the manner done by the Examiner nor has the Examiner shown that the asserted combination teaches each and every element of the rejected claims. Therefore, the Applicants submit that the Examiner has not established a *prima facie* case of obviousness based on the cited prior art, and the claims are patentable over these cited references.

The Examiner admits that Yanagawa does not teach features recited in the original claim 5. That is, Yanagawa does not teach or suggest "a calculation element configured to calculate a pit ratio indicating a ratio between the pit level and one of the read level, the write level, and a recording power and to output the pit ratio as a signal indicative of the level of the reflected-light." See the first full paragraph on page six of the office action.

However, Yanagawa also does not teach or suggest "a detecting element configured to detect a pit level of the optical beam under the recording operation and at least one of a read level and a write level" as recited in the original claim 5.

This is because Yanagawa does not disclose, teach, or suggest a "read level" and a "write level" at all.

Furukawa also does not disclose, teach, or suggest the limitations recited in the original claim 5. The Examiner interprets the "residual error value" described in Furukawa as "the pit level" of the original claim 5. Furthermore, he interprets the "amplitude width value of the disturbance signal" described in Furukawa as "one of the read level, the write

level, and a recording power" recited in the original claim 5. However, his understanding is incorrect.

Furukawa obtains a tracking error signal by outputting the difference between light receiving devices A to D of the photodetector 28 described in FIG. 3 (please see col. 3, lines 17-24 and 60-64). Then, Furukawa generates an oscillation signal as a disturbance signal, and adds the disturbance signal to the tracking error signal (please see col. 3, line 65 to col. 4, line 2). Furthermore, Furukawa extracts only the band component of the disturbance signal from the disturbance superimposed tracking error signal. This component is obtained as a "servo residual error value" signal (please see col. 4, lines 11-14). Then, Furukawa determines the ratio of a "servo residual error value" signal to "the amplitude width value of the disturbance signal." This ratio is set as a tracking servo gain value (please see col. 4, lines 15-24).

On the other hand, claim 5 provides a "detecting element" that detects "a pit level of the optical beam under the recording operation and at least one of a read level and a write level." Therefore, all of the "pit level", "read level" and "write level" are detected from the optical beam reflected from the optical disk under the recording operation. These detected levels are different from the tracking error signal and disturbance signal of Furukawa. In order to obtain the tracking error signal, it is necessary to calculate the differences between the outputs of the photodetectors as explained above.

Furthermore, if the optical beam of Furukawa does not cross any tracks, it is impossible to obtain the tracking error signal. In other words, the "pit level", "read level" and "write level" are totally different from the tracking error signal and disturbance signal from a technological point of view. Furthermore, claim 6 does not require adding any signal such as a disturbance signal to a detected signal. The disturbance signal of Furukawa is generated intentionally.

Consequently, Furukawa does not disclose, teach, or suggest the limitations recited in the original claim 5 at all. Since the limitations of the original claim 5 have been added to claims 1 and 7, the combination of Yanagawa and Furukawa does not disclose, teach, or suggest the features recited in the amended claims 1 and 7 at all, or any claim depending from those claims.

The Examiner also has not provided an adequate "suggestion or motivation to modify the reference or to combine reference teachings." Yanagawa and Furukawa each purport to teach what the Examiner calls creation of "accurate reading of information even if spherical aberration were generated by the thickness error in the transparent substrate of an optical disk." See Yanagawa at paragraphs 0006 and 0007 and Furukawa at col. 2, lines 19-27 and 29-35. The Examiner has not explained why a person of ordinary skill in the art would combine various features of *two* such systems other than forbidden hindsight.

Claims 2 and 3 depend from claim 1 and therefore should be allowable for at least that reason. Claim 5 is cancelled without prejudice.

The rejections of claims 2 and 3 under 35 U.S.C. 103(a) should be withdrawn.

#### **5. The References Made of Record**

The references made of record but not applied to the claims are not believed to teach or suggest the claimed subject matter.

#### **Conclusion**

In view of the above, the Applicants submit that the application is now in condition for allowance and respectfully urge the Examiner to pass this case to issue. The Examiner is respectfully invited to telephone the undersigned attorney as needed in order to advance the examination of this application.

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The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

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Date of Transmission

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August 7, 2006

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Respectfully submitted,



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